

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	10825898
Filing Date	2004-04-15
First Named Inventor	Boyle, William J.
Art Unit	1644
Examiner Name	Schwadron, Ronald B.
Attorney Docket Number	A-451N IDS#1-090309

U.S.PATENTS

Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
	1	4710457		1987-12-01	Dupont et al.	
	2	4710473		1987-12-01	Morris	
	3	4959314		1990-09-25	Mark et al.	
	4	5118667		1992-06-02	Adams et al.	
	5	5393739		1995-02-28	Bentz et al.	
	6	5447851		1995-09-05	Beutler et al.	
	7	5457035		1995-10-10	Baum et al.	
	8	5578569		1996-11-26	Tam	

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number		10825898
Filing Date		2004-04-15
First Named Inventor	Boyle, William J.	
Art Unit	1644	
Examiner Name	Schwadron, Ronald B.	
Attorney Docket Number	A-451N	IDS#1-090309

	9	5585479		1996-12-17	Hoke et al.	
	10	5599708		1997-02-04	Mundy et al.	
	11	5658756		1997-08-19	Rodan et al.	
	12	5843901		1998-12-01	Roeske	
	13	5985832		1999-11-16	Roodman et al.	
	14	6015938		2000-01-18	Boyle et al.	
	15	6087555		2000-07-11	Dunstan et al.	
	16	6271349	B1	2001-08-07	Dougall et al.	
	17	6284485	B1	2001-09-04	Boyle et al.	
	18	6284728	B1	2001-09-04	Boyle et al.	
	19	6284740	B1	2001-09-04	Boyle et al.	

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number		10825898
Filing Date		2004-04-15
First Named Inventor	Boyle, William J.	
Art Unit	1644	
Examiner Name	Schwadron, Ronald B.	
Attorney Docket Number	A-451N	IDS#1-090309

	20	6288032	B1	2001-09-11	Boyle et al	
	21				LEFT INTENTIONALLY BLANK	
	22	6369027	B1	2002-04-09	Boyle et al.	
	23	6528482	B1	2003-03-04	Anderson et al.	
	24	6537763	B2	2003-03-25	Dougall et al.	
	25	6562948	B2	2003-05-13	Anderson	
	26	6569430	B1	2003-05-27	Waldmann et al.	
	27	6649164	B2	2003-11-18	Maraskovsky	
	28	7084257	B2	2006-08-01	Deshpande et al.	
	29	7364736	B2	2008-04-29	Boyle et al.	
	30	4816567		1989-03-28	Cabilly et al.	

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number		10825898
Filing Date		2004-04-15
First Named Inventor	Boyle, William J.	
Art Unit	1644	
Examiner Name	Schwadron, Ronald B.	
Attorney Docket Number	A-451N IDS#1-090309	

	31	5641747		1997-06-24	Popoff et al.	
	32	6046048		2000-04-04	Ashkenazi et al.	
	33	6242586	B1	2001-06-05	Gorman et al.	
	34	7097834	B1	2006-08-29	Boyle	
	35	7192718	B2	2007-03-20	Yamaguchi et al.	
	36	7262274	B2	2007-08-28	Anderson	

If you wish to add additional U.S. Patent citation information please click the Add button.

U.S.PATENT APPLICATION PUBLICATIONS

Examiner Initial*	Cite No	Publication Number	Kind Code ¹	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
	1	20020081720	A1	2002-06-27	Dougall et al.	
	2	20020086826	A1	2002-07-04	Anderson et al.	
	3	20020086827	A1	2002-07-04	Anderson	

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	10825898
Filing Date	2004-04-15
First Named Inventor	Boyle, William J.
Art Unit	1644
Examiner Name	Schwadron, Ronald B.
Attorney Docket Number	A-451N IDS#1-090309

4	20020127637	A1	2002-09-12	Ni et al.	
5	20020150989	A1	2002-10-17	Greene et al.	
6	20020169117	A1	2002-11-14	Maraskovsky	
7	20030100069	A1	2003-05-29	Ni et al.	
8	20030144480	A1	2003-07-31	Gorman et al.	
9	20030166097	A1	2003-09-04	Greene et al.	
10	20050003400	A1	2005-01-06	Boyle	
11	20060246064	A1	2006-11-02	Boyle	
12	20030100488	A1	2003-05-29	Boyle	
13	20040023313	A1	2004-02-05	Boyle et al.	
14	20040033535	A1	2004-02-19	Boyle et al.	

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	10825898
Filing Date	2004-04-15
First Named Inventor	Boyle, William J.
Art Unit	1644
Examiner Name	Schwadron, Ronald B.
Attorney Docket Number	A-451N IDS#1-090309

If you wish to add additional U.S. Published Application citation information please click the Add button.

FOREIGN PATENT DOCUMENTS

Examiner Initial*	Cite No	Foreign Document Number ³	Country Code ² i	Kind Code ⁴	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	T ⁵
	1	743257	AU	B2	1998-11-11	Boyle		<input type="checkbox"/>
	2	713471	AU	B2	1998-07-17	Anderson et al.		<input type="checkbox"/>
	3	735355	AU	B2	1998-11-11	Yamaguchi et al.		<input type="checkbox"/>
	4	0514130	EP	A2	1992-11-19	Sato et al.		<input type="checkbox"/>
	5	0514130	EP	A3	1992-11-19	Sato et al.		<input type="checkbox"/>
	6	0526905	EP	A2	1993-02-10	Wallach et al.		<input type="checkbox"/>
	7	0526905	EP	A3	1993-02-10	Wallach et al.		<input type="checkbox"/>
	8	0727211	EP	A1	1996-08-21	Dunnington		<input type="checkbox"/>
	9	330400	NZ		1999-05-28	Snow Brand Milk Products Co., Ltd.		<input type="checkbox"/>

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number		10825898
Filing Date		2004-04-15
First Named Inventor	Boyle, William J.	
Art Unit	1644	
Examiner Name	Schwadron, Ronald B.	
Attorney Docket Number	A-451N IDS#1-090309	

	10	9321946	WO	A1	1993-11-11	Thompson et al.		<input type="checkbox"/>
	11	9511308	WO	A1	1995-04-27	Simonet et al.		<input type="checkbox"/>
	12	9628546	WO	A1	1996-09-19	Greene et al.		<input type="checkbox"/>
	13	9700317	WO	A1	1997-01-03	Roodman et al.		<input type="checkbox"/>
	14	9828246	WO	A1	1998-07-02	Hotier et al.		<input type="checkbox"/>
	15	9919468	WO	A1	1999-04-22	Simonet et al.		<input type="checkbox"/>
	16	9953942	WO	A1	1999-10-28	Simonet et al.		<input type="checkbox"/>
	17	0103719	WO	A2	2001-01-18	Boyle et al.		<input type="checkbox"/>
	18	0103719	WO	A3	2001-01-18	Boyle et al.		<input type="checkbox"/>

If you wish to add additional Foreign Patent Document citation information please click the Add button

NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T ⁵
-----------------------	------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number		10825898
Filing Date		2004-04-15
First Named Inventor	Boyle, William J.	
Art Unit	1644	
Examiner Name	Schwadron, Ronald B.	
Attorney Docket Number	A-451N IDS#1-090309	

1	Adams et al., "Complementary DNA Sequencing: Expresses Sequence Tags and Human Genome Project", Science, 252: 1651-1556 (1991)	<input type="checkbox"/>
2	Benjamini et al., Immunology: A Short Course, 2nd Edition, Wiley-Liss, New York, p. 40	<input type="checkbox"/>
3	Burgess, T. L. et al., "the ligand for osteoprotegerin (OPGL) directly activates mature osteoclasts", J. Cell Bio., 145: 527-538 (1999)	<input type="checkbox"/>
4	Chambers et al., "Generation of osteoclast-inductive and osteoclastogenic cell lines from the H-2KbtsA58 transgenic mouse", Proc. Natl. Acad. Sci. USA, 90: 5578-5582 (1993)	<input type="checkbox"/>
5	Chambers, T. J., "Regulations of the differentiation and function of osteoclasts", J. Pathol., 192: 4-13 (2000)	<input type="checkbox"/>
6	Chenu et al., "Transforming growth factor beta inhibits formation of osteoclast-like cells in long-term human marrow cells", Proc. Natl. Acad. Sci. USA, 90: 5578-5582 (1993)	<input type="checkbox"/>
7	INTENTIONALLY LEFT BLANK	<input type="checkbox"/>
8	Database GenBank Accession No. AB008426	<input type="checkbox"/>
9	Database GenBank Accession No. AF019047	<input type="checkbox"/>
10	Database GenBank Accession No. AF013170	<input type="checkbox"/>
11	Database GenBank Accession No. AF013171	<input type="checkbox"/>

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		10825898
	Filing Date		2004-04-15
	First Named Inventor	Boyle, William J.	
	Art Unit	1644	
	Examiner Name	Schwadron, Ronald B.	
	Attorney Docket Number	A-451N IDS#1-090309	

	12	Database GenBank Accession No. AF019048	<input type="checkbox"/>
	13	Fata, J. E. et al., "The osteoclast differentiation factor osteoprotegerin-ligand is essential for mammary gland development", Cell, 103: 41-50 (2000)	<input type="checkbox"/>
	14	Faust, J. et al., "Osteoclast markers accumulate on cells developing from human peripheral blood mononuclear precursors", J. Cell Biochem., 72: 67-80 (1999)	<input type="checkbox"/>
	15	Fawthrop et al., "The effect of transforming growth factor beta on the plasminogen activator activity of normal osteoblast-like cells and a human osteosarcoma cell line MG-63", J. of Bone and Mineral Research, 7(12): 1363-1371, (1992)	<input type="checkbox"/>
	16	Fenton et al., "Long-Term culture of disaggregated rat osteoclasts: inhibition of bone resorption and reduction of osteoclast-like cell number by calcitonin and PTHrP[107-139]", J. of Cellular Physiology, 155: 1-7 (1993)	<input type="checkbox"/>
	17	Fuller, K. et al., "TRANCE is necessary and sufficient for osteoblast-mediated activation of bone resorption in osteoclasts", J. Exp. Med., 188: 997-1001 (Sept. 7, 1998)	<input type="checkbox"/>
	18	Gao, Y. H. et al., "Potential role of cbfal, an essential transcriptional factor for osteoblast differentiation, in osteoclastogenesis: regulation of mRNA expression of osteoclast differentiation factor (ODF)", Biochem. Biophys. Res. Commun., 252: 697-702 (1998)	<input type="checkbox"/>
	19	George et al., "Current methods in sequence comparison and analysis", Macromolecular Sequencing and Synthesis Selected Methods and Applications, David H. Schlesinger (ed.), Alan R. Liss Inc. (Publisher), pgs. 127-149 (1988)	<input type="checkbox"/>
	20	Goodwin et al., "Molecular Cloning and Expression of the Type 1 and Type 2 Murine Receptors for Tumor Necrosis Factor", Molecular and Cellular Biology, 11(6): 3020-3026 (1991)	<input type="checkbox"/>
	21	Gowen et al., "Preferential inhibition of cytokine-stimulated bone resorption by recombinant interferon gamma", J. of Bone and Mineral Research, 1(5): 469-474 (1986)	<input type="checkbox"/>
	22	Greenfield, E. M. et al., "Regulation of osteoclast activity", Life Sci. 65: 1087-1102 (1999)	<input type="checkbox"/>

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	10825898
Filing Date	2004-04-15
First Named Inventor	Boyle, William J.
Art Unit	1644
Examiner Name	Schwadron, Ronald B.
Attorney Docket Number	A-451N IDS#1-090309

23	Hattersley et al, "Hyman macrophage colony-stimulating factor inhibits bone resorption by osteoclasts disaggregated from rat bone", J. of Cellular Physiology, 137: 199-203 (1988)	<input type="checkbox"/>
24	Hsu, H. et al., "Tumor necrosis factor receptor family member RANK mediates osteoclast differentiation and activation induced by osteoprotegerin ligand", Proc. Natl. Acad. Sci. USA, 96: 3540-3545 (1999)	<input type="checkbox"/>
25	International Search Report, International Appl. No. PCT/JP98/10728 (1998)	<input type="checkbox"/>
26	Itonaga, I. et al., "Rheumatoid arthritis synovial macrophage-osteoclast differentiation is osteoprotegerin ligand-dependent", J. Pathol., 192: 97-104 (2000)	<input type="checkbox"/>
27	Kaji et al., "Insulin-like growth factor-I mediates osteoclast-like cell formation stimulated by parathyroid hormone", J. of Cellular Physiology, 172: 55-62 (1997)	<input type="checkbox"/>
28	Kasano et al., "Inhibitory effect of interleukin-4 on osteoclast-like cells formation in mouse bone marrow culture", Bone and Mineral, 21(3): 179-188 (1993)	<input type="checkbox"/>
29	Kim, D. et al., "Regulation of peripheral lymph node genesis by the tumor necrosis factor family member TRANCE", J. Exp. Med., 192: 1467-1478 (2000)	<input type="checkbox"/>
30	Kim, Nacksung et al., "Diverse roles of the tumor necrosis factor family member TRANCE in skeletal physiology revealed by TRANCE deficiency and partial rescue by a lymphocyte-expresses TRANCE transgene", Proc. Natl. Acad. Sci. USA, 97: 10905-10910 (2000)	<input type="checkbox"/>
31	Kinpara, K. et al., "Osteoclast differentiation factor in human osteosarcoma cell line", J. Immunoassay, 21:327-340 (2000)	<input type="checkbox"/>
32	Kitazawa, R. et al., "Promoter structure of mouse RANKL/TRANCE/ODF gene", Biochim. Biophys. Acta., 1445: 134-141 (1999)	<input type="checkbox"/>
33	Kong, Y. Y. et al., "Activated T cells regulate bone loss and joint destruction in adjuvant arthritis through osteoprotegerin ligand", Nature, 402: 304-309 (1999)	<input type="checkbox"/>

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	10825898
Filing Date	2004-04-15
First Named Inventor	Boyle, William J.
Art Unit	1644
Examiner Name	Schwadron, Ronald B.
Attorney Docket Number	A-451N IDS#1-090309

34	Kong, Y. Y. and Penninger, J. M., "Molecular control of bone remodeling and osteoporosis", Exp. Gerontol., 35: 947-956 (2000)	<input type="checkbox"/>
35	Kukita et al., "Osteoinductive factor inhibits formation of human osteoclast-like cells", Proc. Natl. Acad Sci USA., 87: 3023-3026 (1990)	<input type="checkbox"/>
36	Lacey et al., "Osteoprotegerin ligand modulates murine osteoclast survival in vitro and in vivo", Am. J. Pathol., 157: 435-448 (2000)	<input type="checkbox"/>
37	Lewis et al., "Cloning and expression of cDNAs for two distinct murine tumor necrosis factor receptors demonstrate one receptor in species specific", Proc. Natl. Acad. Sci. USA, 88: 2830-2834 (1991)	<input type="checkbox"/>

If you wish to add additional non-patent literature document citation information please click the Add button

EXAMINER SIGNATURE

Examiner Signature	/Ronald Schwadron/	Date Considered	09/15/2009
--------------------	--------------------	-----------------	------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. ² Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). ³ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁴ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁵ Applicant is to place a check mark here if English language translation is attached.

Nonconsidered references lacked date and/or author(or inventor)